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UPDATING DoD MEDICAL TREATMENT FACILITY (MTF) PEER GROUPS

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This document presents the methodology and data employed in updating DoD Medical Treatment Facility (MTF) peer groups. Peer groups were originally constructed in the development of a Diagnosis Related Groups (DRGs) based resource allocation methodology using FY 1986 data, and subsequently updated using FY 1988 data. The current focus is upon updating the peer groups using FY 1990 data; however, some modification of the methodology was performed in order to accommodate available data. FY 1990 peer groups resulting from the new data and methodology are presented and compared to the FY 1988 peer groups.

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FOREWORD

This document presents the methodology and data employed in updating DoD medical treatment facility (MTF) peer groups. Peer groups were originally constructed in the development of a diagnosis related groups (DRG) based resource allocation methodology using FY86 data, and subsequently updated using FY88 data. The current focus is upon updating the peer groups using FY90 data; however, some modification of the methodology was performed in order to accommodate available data. FY90 peer groups resulting from the new data and methodology are presented and compared to the FY88 peer groups. This document was prepared under contract MDA903-88-C-0417. Questions or comments regarding this document should be directed to LTC Stuart Baker, OASD(HA) Resource Analysis and Management Systems, (703) 756-1918.

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1.0 INTRODUCTION

This working note presents the methodology and results for updating DoD medical treatment facility (MTF) peer groups, using FY90 data. The methodology is based upon an approach employed by the government in the course of developing a diagnosis related groups (DRG) based resource allocation methodology[1]. As the name implies, a peer group is a set of facilities which are similar to each other, according to specified characteristics. The characteristics employed in the original DoD peer grouping analysis were:

- location;
- teaching status;
- relative case-mix index (RCMI); and
- size (where MTF size was defined as the number of operating beds).

The original DoD analysis employed FY86 data. Vector Research, Incorporated (VRI) subsequently updated peer group definitions using FY88 data[2] in the course of refining and updating the DRG-based resource allocation models. That analysis revised peer group definitions, in addition to updating the peer groups with FY88 data.

In addition to using more recent data, the current analysis also revises peer group definitions to employ average daily patient load (ADPL) in defining MTF size, rather than operating beds. This revision

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[1]**Fiscal Year 1989 Diagnosis Related Groups Based Resource Allocation Guidance**, Memorandum from ASD(Health Affairs) to the Assistant Secretary of the Army (MERA), Assistant Secretary of the Navy (MERA), and Assistant Secretary of the Ari Force (R), 5 August 1988.

[2]**Analysis of DoD MTF Peer Group Consistency**, VRI-HMS-1 WP90-1, J. Coventry, J. Hufford, C. Roehrig, Vector Research, Incorporated, 15 January 1990.

was born out of necessity, due to the fact that information on operating beds is no longer available. The focus of the current analysis is not on developing a new peer grouping methodology, but rather on maintaining the basic peer group definitions as closely as possible to the existing ones. Nevertheless, because ADPL was adopted as the facility size measure, replacing operating beds, new peer group definitions were required. The approach adopted for determining these definitions closely followed that documented in developing the FY88 peer group definitions. While FY90 data were the principal information used, FY88 and FY89 data were also examined to support the analysis. Finally, it should be noted that where RCMI is referenced, it is the RCMI based upon the version 4.0 grouper and DRG weights.

This working note contains two further chapters. Chapter 2.0 discusses the methodology involved in updating and revising the peer groups. Chapter 3.0 presents the peer groups resulting from applying the peer group definitions to FY90 data. Finally, note that the focus of this study is upon inpatient facilities, and that while clinic peer groups do exist, they are not part of this analysis.

2.0 METHODOLOGY

The first step in defining peer groups was to separate MTFs into three sets, according to location and teaching status:

- medical centers;
- CONUS community hospitals; and
- overseas hospitals.

The more detailed peer group definitions of facilities within each of these broad categories will be discussed in the next three sections. Section 2.1 discusses medical center peer grouping. Section 2.2 presents CONUS community hospital peer grouping. The final section presents overseas hospital peer grouping.

2.1 MEDICAL CENTER PEER GROUPING

FY86 and FY88 medical center peer group definitions did not rely upon MTF size. Therefore, the fact that ADPL replaced operating beds as the measure of facility size did not require new peer group definitions. The FY88 medical center peer group definitions were identical to those developed by the government with FY86 data. These definitions were based upon RCMI alone, and are presented in the table below.

FY86 AND FY88 MEDICAL CENTER PEER GROUP DEFINITIONS

PEER GROUP	RCMI
MC1	< 1.20
MC2	1.20 <= RCMI < 1.50
MC3	>= 1.50

For the current study, medical centers were sorted by FY90 RCMI, and this list examined in order to determine whether the cut points were still valid. The examination revealed that these cut points occurred at natural breaks in the medical center RCMI data; therefore, they were maintained. A summary of the medical center peer group definitions and the size of each peer group in FY86, FY88, and FY90 are presented in exhibit 2-1.

2.2 CONUS COMMUNITY HOSPITAL PEER GROUPING

In the FY88 analysis, there were no natural cut points in either operating bed size or RCMI to use in defining peer groups. Therefore, the principal adopted was that of keeping balance in the peer group size. There were two basic steps in the FY88 CONUS community hospital peer grouping methodology:

- determine quartiles based upon operating beds; and
- determine RCMI cut points which divide each of the quarters in half.

The peer group definitions resulting from this approach for FY88 are presented in the table below.

EXHIBIT 2-1: SUMMARY OF FY86, FY88, AND FY90 MEDICAL CENTER PEER GROUP DEFINITIONS

PEER GROUP	RCMI	NUMBER OF MTFs FY86	FY88	FY90
MC1	< 1.20	7	7	6
MC2	1.20 ≤ RCMI < 1.50	6	6	7
MC3	>= 1.50	5	5	5

FY88 CONUS COMMUNITY HOSPITAL PEER GROUP DEFINITIONS

Peer Group	Operating Beds	RCMI
CH1_88	< 20	< .75
CH2_88	< 20	>= .75
CH3_88	21 - 40	< .80
CH4_88	21 - 40	>= .80
CH5_88	41 - 80	< .85
CH6_88	41 - 80	>= .85
CH7_88	>= 80	< .90
CH8_88	>= 80	>= .90

Because ADPL, rather than operating beds, was the facility size measure adopted for the FY90 analysis, these definitions could not be directly adopted in determining FY90 peer groups. Therefore, the two steps identified above were carried out on the FY90 data in order to determine the appropriate ADPL quartiles to use in defining FY90 peer groups.

FY90 Biometrics data were used in computing MTF ADPL for CONUS community hospitals (FY90 Medical Expense and Performance Reporting System (MEPRS) data were not available at the time of this study). These facilities were then sorted upon ADPL. These lists were then examined in order to determine whether there were any natural break points in the data in regions close to the quartiles. In order to divide the data in half, ADPL from the 40th to the 60th percentiles were examined. The most promising cut point in this region was ADPL of 25 (this ADPL was just at the midpoint of the data). The FY88 and FY89 MEPRS data ADPL supported this choice of a midpoint.

One promising cut point in the 75th percentile region was 60. Again, the MEPRS ADPL for FY88 and FY89 supported this choice. The choice of a cut point for the 25th percentile was not straightforward. The ADPL in the region from the tenth percentile to the 40th percentile only range from 10.5 to 15.6, with no large breaks. Therefore, the FY90 ADPL closest to the 25th percentile was chosen: an ADPL of 12.

In dividing each of the quarters thus derived into two peer groups, the FY88 RCMI cut points were employed. Therefore,

- for the first quarter, the RCMI dividing point was .75;
- for the second quarter, the RCMI dividing point was .80;
- for the third quarter, the RCMI dividing point was .85; and
- for the fourth quarter, the RCMI dividing point was .90.

The eight resulting CONUS community hospital peer group definitions, together with the FY86 and FY88 peer group definitions, are displayed in exhibit 2-2, along with the size of each peer group.

2.3 OVERSEAS HOSPITAL PEER GROUPING

The FY88 overseas hospital peer groups are displayed in the table below:

FY88 OVERSEAS HOSPITAL PEER GROUP DEFINITIONS

Peer Group	Operating Beds	RCMI
OS1_88	< 50	< .75
OS2_88	< 50	>= .75
OS3_88	>= 51	< .90
OS4_88	>= 40	>= .90

EXHIBIT 2-2: SUMMARY OF FY86, FY88, AND FY90 CONUS COMMUNITY HOSPITAL PEER GROUP DEFINITIONS

	FY86			FY88			FY90		
PEER GROUP	OPERATING BEDS	RCMI	NUMBER OF MTFs	OPERATING BEDS	RCMI	NUMBER OF MTFs	ADPL	RCMI	NUMBER OF MTFs
CH1	<= 29	< .75	16	<= 20	< .75	17	< 12	< .75	14
CH2	<= 29	>= .75	11	<= 20	>= .75	12	< 12	>= .75	10
CH3	30 - 49	< .80	20	21 - 40	< .80	18	12 <=ADPL <25	< .80	19
CH4	30 - 49	>= .80	11	21 - 40	>= .80	13	12 <=ADPL <25	>= .80	12
CH5	50 - 99	< .85	11	41 - 80	< .85	16	25 <=ADPL <60	< .85	11
CH6	50 - 99	>= .85	13	41 - 80	>= .85	7	25 <=ADPL <60	>= .85	16
CH7	>= 100	>= .90	16	> 80	>= .90	13	>= 60	>= .90	10
CH8	>= 100	>= .90	12	> 80	>= .90	14	>= 60	>= .90	17

As with CONUS community hospitals, one component of the overseas hospital peer group definitions in previous peer grouping efforts was operating beds. Therefore, new definitions involving ADPL were developed in this analysis. Overseas hospitals were sorted by ADPL and this list examined for naturally occurring break points in the ADPL. There was a relatively large gap in FY90 Biometrics ADPL occurring between 22.5 and 36.1 ADPL, which divided the overseas hospitals roughly in half. Similar gaps existed in the FY88 and FY89 MEPRS ADPL, and 35 appeared to be the best ADPL in the interval to choose, given all three years' data.

In the previous peer grouping study, an RCMI of .75 was used to divide the smaller overseas hospitals into two peer groups, while an RCMI of .90 was chosen to divide the larger overseas hospitals into two peer groups. These RCMI dividing points were adopted again for defining peer groups in the current analysis. The four resulting FY90 overseas hospital peer group definitions and sizes are presented in exhibit 2-3, along with the FY86 and FY88 peer group definitions and sizes.

EXHIBIT 2-3: SUMMARY OF FY86, FY88, AND FY90 OVERSEAS HOSPITAL PEER GROUP DEFINITIONS

PEER GROUP	FY86			FY88			FY90		
	OPERATING BEDS	RCMI	NUMBER OF MTFs	OPERATING BEDS	RCMI	NUMBER OF MTFs	ADPL	RCMI	NUMBER OF MTFs
OS1	< 50	< .75	11	<= 50	< .75	8	< 35	< .75	8
OS2	< 50	>= .75	11	<= 50	>= .75	15	< 35	>= .75	12
OS3	>= 50	< .80	9	> 50	< .80	8	>= 35	< .80	7
OS4	>= 50	>= .80	7	> 50	>= .80	7	>= 35	>= .80	10

3.0 FY90 PEER GROUPS

The FY90 peer group definitions for all facility types are presented in exhibit 3-1.

Exhibit 3-2 displays medical centers by FY90 peer group, along with each facility's FY90 RCMI and ADPL, and FY88 peer group, for comparison. There are six MTFs in the first medical center peer group, seven MTFs in the second, and five in the third. As the exhibit shows, only one facility switched peer groups from FY88 to FY89: William Beaumont AMC switched from the first to the second medical center peer group, as a result of a rise in its RCMI in FY90.

Exhibit 3-3 presents the CONUS community hospitals, by FY90 peer group. As displayed in the exhibit, there are:

- 14 MTFs in peer group CH1_90;
- 10 MTFs in peer group CH2_90;
- 19 MTFs in peer group CH3_90;
- 12 MTFs in peer group CH4_90;
- 11 MTFs in peer group CH5_90;
- 16 MTFs in peer group CH6_90;
- 10 MTFs in peer group CH7_90; and
- 17 MTFs in peer group CH8_90.

In all, 44 of 109 CONUS community hospitals switched peer groups between FY88 and FY90. Of these MTFs which changed peer groups, 16 switched based upon RCMI changes alone. Of these 16, twelve were due to an increase in RCMI. Furthermore, of the these twelve, seven were switches from peer group CH7_88 to CH8_90.

EXHIBIT 3-1: SUMMARY OF FY90 PEER GROUP DEFINITIONS

PEER GROUP	RCMI
MC1_90	< 1.20
MC2_90	1.20 <= RCMI <1.50
MC3_90	>= 1.50

MEDICAL CENTERS

PEER GROUP	ADPL	RCMI
CH1	< 12	< .75
CH2	< 12	>= .75
CH3	12 <= ADPL <25	< .80
CH4	12 <= ADPL <25	>= .80
CH5	25 <= ADPL <60	< .85
CH6	25 <= ADPL <60	>= .85
CH7	>= 60	< .90
CH8	>= 60	>= .90

CONUS COMMUNITY HOSPITALS

PEER GROUP	ADPL	RCMI
OS1	< 35	< .75
OS2	< 35	>= .75
OS3	>= 35	< .80
OS4	>= 35	>= .80

OVERSEAS HOSPITALS

EXHIBIT 3-2: MEDICAL CENTERS GROUPED BY FY90 PEER GROUP

Peer Group MC1_90: RCMI < 1.20					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0027	NH Oakland	Oakland	MC1_88	1.122	149.290
0029	NH San Diego	San Diego	MC1_88	1.165	393.351
0052	Tripler AMC	Ft. Shafter	MC1_88	1.182	387.249
0055	USAF Med Ctr Scott	Scott AFB	MC1_88	1.150	106.115
0124	NH Portsmouth	Portsmouth	MC1_88	1.039	315.274
0125	Madigan AMC	Ft. Lewis	MC1_88	1.138	291.255

Peer Group MC2_90: 1.20 <= RCMI < 1.50					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0014	David Grant USAF Med Ctr	Travis AFB	MC2_88	1.285	201.260
0047	Eisenhower AMC	Ft. Gordon	MC2_88	1.385	295.049
0066	Malcom Grow USAF Med Ctr	Andrews AFB	MC2_88	1.284	183.940
0067	NH Bethesda	Bethesda	MC2_88	1.393	271.079
0073	USAF Med Ctr Keesler	Keesler AFB	MC2_88	1.474	217.038
0095	USAF Med Ctr Wright-Patterson	Wright-Patterson AFB	MC2_88	1.345	190.197
0108	William Beaumont AMC	Ft. Bliss	MC1_88	1.235	306.178

Peer Group MC3_90: RCMI >= 1.50					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0022	Letterman AMC	Presidio of S. F.	MC3_88	1.812	235.611
0031	Fitzsimmons AMC	Denver	MC3_88	1.704	373.074
0037	Walter Reed AMC	Washington	MC3_88	1.829	667.351
0109	Brooke AMC (JMMC)	Ft. Sam Houston	MC3_88	1.654	361.847
0117	Wilford Hall USAF Med Ctr	Lackland AFB	MC3_88	1.629	620.970

EXHIBIT 3-3: CONUS COMMUNITY HOSPITALS GROUPED BY FY90 PEER GROUP

Peer Group CH1_90: ADPL < 12, RCMI < .75					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0007	BRH Navsta Adak	Adak	CH1_88	0.688	0.622
0011	USAF Hospital Williams	Williams AFB	CH1_88	0.695	10.022
0012	97th Strategic Hospital	Eaker AFB	CH1_88	0.715	7.784
0015	9th Strategic Hospital	Beale AFB	CH1_88	0.704	11.74
0019	USAF Hospital Edwards	Edwards AFB	CH2_88	0.748	11.948
0028	NH Lemoore	Lemoore	CH3_88	0.742	9.548
0065	42nd Strategic Hospital	Loring AFB	CH1_88	0.692	11.934
0068	NH Patuxent River	Patuxent River	CH1_88	0.619	8.055
0072	410th Strategic Hospital	K.I.Sawyer AFB	CH1_88	0.689	11.31
0090	4th Medical Group	Seymour Johnson AFB	CH1_88	0.727	11.858
0097	USAF Hospital Altus	Altus AFB	CH1_88	0.739	11.518
0111	USAF Hospital Reese	Reese AFB	CH2_88	0.744	2.192
0114	USAF Hospital Laughlin	Laughlin AFB	CH1_88	0.672	5.499
0127	NH Oak Harbor	Oak Harbor	CH1_88	0.653	11.321

Peer Group CH2_90: ADPL < 12, RCMI >= .75					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0036	USAF Hospital Dover	Dover AFB	CH3_88	0.758	10.499
0046	USAF Hospital Patrick	Patrick AFB	CH2_88	0.974	9.167
0054	USAF Hospital Chanute	Chanute AFB	CH4_88	0.998	9.425
0059	384th Strategic Hospital	McConnell AFB	CH2_88	0.873	3.797
0063	23rd Medical Group	England AFB	CH2_88	0.889	8.71
0074	USAF Hospital Columbus	Columbus AFB	CH2_88	0.891	6.104
0087	380th Strategic Hospital	Plattsburgh AFB	CH2_88	0.837	4.992
0102	354th Medical Group	Myrtle Beach AFB	CH2_88	0.942	5.797
0115	67th Medical Group	Bergstrom AFB	CH4_88	0.905	11.164
0294	Hawley AH	Ft. Benjamin Harriso	CH2_88	0.828	7.827

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EXHIBIT 3-3: CONUS COMMUNITY HOSPITALS GROUPED BY FY90 PEER GROUP (Continued)

Peer Group CH3_90: 12 <= ADPL <25, RCMI < .80					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0017	93rd Strategic Hospital	Castle AFB	CH3_88	0.664	14.753
0018	1st Strategic Hospital	Vandenberg AFB	CH4_88	0.794	12.693
0020	831st Medical Group	George AFB	CH3_88	0.734	12.929
0030	BRH MGAGCC Twenty-nine Palms	Twenty-nine Palms	CH1_88	0.655	13.471
0053	366th Medical Group	Mountain Home AFB	CH1_88	0.729	14.882
0071	379th Strategic Hospital	Wurtsmith AFB	CH1_88	0.783	13.416
0076	351st Strategic Hospital	Whiteman AFB	CH1_88	0.644	13.948
0084	833rd Medical Group	Holloman AFB	CH3_88	0.715	14.485
0085	27th Medical Group	Cannon AFB	CH3_88	0.757	15.066
0088	416th Strategic Hospital	Griffiss AFB	CH1_88	0.683	12.882
0092	NH Cherry Point	Cherry Point	CH3_88	0.633	18.668
0093	842nd Strategic Hospital	Grand Forks AFB	CH3_88	0.678	16.474
0096	USAF Hospital Tinker	Tinker AFB	CH3_88	0.740	20.712
0101	363rd Medical Group	Shaw AFB	CH3_88	0.733	21.975
0106	44th Strategic Hospital	Ellsworth AFB	CH3_88	0.679	21.173
0112	96th Strategic Hospital	Dyess AFB	CH3_88	0.735	16.800
0119	USAF Hospital Hill	Hill AFB	CH3_88	0.780	19.833
0129	90th Strategic Hospital	F.E. Warren AFB	CH3_88	0.707	15.644
0131	Weed ACH	Ft. Irwin	CH1_88	0.673	12.460

Peer Group CH4_90: 12 <= ADPL < 25, RCMI >= .80					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0001	Fox AH	Redstone Arsenal	CH4_88	0.947	20.685
0013	USAF Hospital Little Rock	Little Rock AFB	CH4_88	0.816	14.482
0035	NH Groton	Groton	CH5_88	0.960	13.129
0044	31st Medical Group	Homestead AFB	CH5_88	0.850	23.896
0050	347th Medical Group	Moody AFB	CH2_88	0.895	15.299
0051	USAF Hospital Robins	Robins AFB	CH2_88	0.813	15.282
0058	Munson AH	Ft. Leavenworth	CH4_88	1.027	15.071
0070	Cutler AH	Ft. Devens	CH4_88	0.866	18.636
0080	509th Strategic Hospital	Pease AFB	CH3_88	0.816	14.419
0081	Patterson AH	Ft. Monmouth	CH4_88	0.919	14.748
0083	USAF Hospital Kirtland	Kirtland AFB	CH4_88	0.963	19.548
0099	NH Philadelphia	Philadelphia	CH6_88	0.895	13.184

-- Continued --

EXHIBIT 3-3: CONUS COMMUNITY HOSPITALS GROUPED BY FY90 PEER GROUP (Continued)

Peer Group CH5_90: 25 <= ADPL < 60, RCMI < .85					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0003	Lyster AH	Ft. Rucker	CH4_88	0.846	33.981
0005	Bassett ACH	Ft. Wainwright	CH3_88	0.759	31.419
0009	832nd Medical Group	Luke AFB	CH5_88	0.832	29.921
0010	836th Medical Group	Davis Monthan AFB	CH5_88	0.821	26.951
0043	325th Medical Group	Tyndall AFB	CH4_88	0.842	27.973
0045	56th Medical Group	Macdill AFB	CH5_88	0.840	44.085
0062	2nd Strategic Hospital	Barksdale AFB	CH5_88	0.845	31.526
0078	Ehrling Berquist Rgn Hosp	Offutt AFB	CH5_88	0.805	45.255
0079	554th Medical Group	Nellis AFB	CH3_88	0.758	27.463
0107	NH Millington	Millington	CH5_88	0.787	38.838
0120	1st Medical Group	Langley AFB	CH5_88	0.676	35.753

Peer Group CH6_90: 25 <= ADPL < 60, RCMI >= .85					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0002	Noble AH	Ft. McClellan	CH6_88	0.889	35.945
0004	Air University Rgn Hospital	Maxwell AFB	CH6_88	0.944	41.238
0008	Bliss AH	Ft. Huachuca	CH5_88	0.894	34.726
0016	USAF Hospital Mather	Mather AFB	CH5_88	0.907	31.510
0021	22nd Strategic Hospital	March AFB	CH8_88	0.955	50.279
0033	USAF Academy Hospital	USAF Academy	CH5_88	0.851	41.962
0069	Kimbrough AH	Ft. Meade	CH6_88	1.038	40.364
0086	Keller AH	West Point	CH5_88	0.866	41.036
0094	857th Strategic Hospital	Minot AFB	CH4_88	0.853	26.723
0100	NH Newport	Newport	CH8_88	0.986	37.978
0104	NH Beaufort	Beaufort	CH6_88	0.921	32.970
0118	NH Corpus Christi	Corpus Christi	CH4_88	1.041	29.586
0121	McDonald AH	Ft. Eustis	CH6_88	0.883	34.036
0122	Kenner AH	Ft. Lee	CH6_88	0.899	41.151
0126	NH Bremerton	Bremerton	CH8_88	0.890	56.789
0128	92nd Strategic Hospital	Fairchild AFB	CH3_88	0.850	28.238

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EXHIBIT 3-3: CONUS COMMUNITY HOSPITALS GROUPED BY FY90 PEER GROUP (*Concluded*)

Peer Group CH7_90: ADPL >= 60, RCMI < .90					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0006	USAF Hospital Elmendorf	Elmendorf AFB	CH8_88	0.859	60.129
0023	Hays AH	Ft. Ord	CH7_88	0.828	98.014
0032	Evans AH	Ft. Carson	CH7_88	0.827	98.636
0039	NH Jacksonville	Jacksonville	CH7_88	0.891	90.112
0049	Winn AH	Ft. Stewart	CH5_88	0.802	71.041
0057	Irwin AH	Ft. Riley	CH7_88	0.842	81.868
0061	Ireland AH	Ft. Knox	CH7_88	0.892	96.170
0064	Bayne-Jones AH	Ft. Polk	CH5_88	0.775	67.227
0110	Darnall AH	Ft. Hood	CH7_88	0.795	153.540
0123	Dewitt AH	Ft. Belvoir	CH5_88	0.807	61.353

Peer Group CH8_90: ADPL >= 60, RCMI >= .90					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0024	NH Camp Pendleton	Camp Pendleton	CH8_88	0.909	106.877
0025	NH Long Beach	Long Beach	CH8_88	1.181	99.866
0038	NH Pensacola	Pensacola	CH8_88	1.030	75.411
0040	NH Orlando	Orlando	CH8_88	0.905	78.658
0042	USAF Rgn Hospital Eglin	Eglin AFB	CH7_88	0.932	102.099
0048	Martin AH	Ft. Benning	CH8_88	1.029	159.115
0056	NH Great Lakes	Great Lakes	CH8_88	1.143	71.529
0060	Blanchfield ACH	Ft. Campbell	CH7_88	1.026	116.074
0075	Wood AH	Ft. Leonard Wood	CH7_88	0.910	103.822
0082	Walson AH	Ft. Dix	CH8_88	0.947	61.047
0089	Womack AH	Ft. Bragg	CH7_88	0.913	190.052
0091	NH Camp Lejeune	Camp Lejeune	CH7_88	0.904	97.784
0098	Reynolds AH	Ft. Sill	CH7_88	0.917	97.838
0103	NH Charleston	Charleston	CH7_88	0.922	106.729
0105	Moncrief AH	Ft. Jackson	CH8_88	1.011	103.397
0113	USAF Rgn Hospital Sheppard	Sheppard AFB	CH8_88	1.151	94.534
0116	Robert Thompson Strategic Hosp	Carswell AFB	CH8_88	1.019	86.466

Of the remaining 28 MTFs changing peer groups between FY88 and FY90, four would have switched peer groups due to changes in RCMI alone, but also changed due to changes in the facility size measure:

- 379th Strategic Hospital at Wurtsmith AFB switched from CH1_88 to CH3_90;
- 92nd Strategic Hospital at Fairchild AFB switched from CH3_88 to CH6_90;
- NH Groton switched from CH5_88 to CH4_90; and
- NH Bremerton switched from CH8_88 to CH6_90.

The remaining 24 changes are not necessarily directly attributable to changes in facility size, because a different facility size measure was employed in this analysis. For these facilities, there may have been no change in either real facility size or facility behavior between FY88 and FY90: the change in the data used to measure facility size may have been the sole reason for the facility changing from one peer group to another. At most it seems that there may have been a change in **relative** facility size. Of all 28 changes attributable, at least in part, to changes in facility sizes, 18 switched to peer groups characterized by larger facilities, and ten switched to peer groups characterized by smaller facilities.

Exhibit 3-4 shows the overseas hospitals divided into peer groups. There are four overseas hospital peer groups, with:

- eight facilities in OS1_90;
- twelve facilities in OS2_90;
- seven facilities in OS3_90; and
- ten facilities in OS4_90.

EXHIBIT 3-4: OVERSEAS HOSPITALS GROUPED BY FY90 PEER GROUP

Peer Group OS1_90: ADPL < 35, RCMI < .75					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0617	NH Naples	Naples	OS2_88	0.747	21.06
0623	NH Keflavik	Iceland	OS2_88	0.688	2.31
0624	BRH USNAF Sigonella	Italy	OS1_88	0.646	1.258
0626	USAF Hospital Bitburg	Bitburg AB	OS1_88	0.672	10.282
0627	USAF Hospital Hahn	Hahn AB	OS1_88	0.647	10.521
0629	USAF Hospital Lajes	Lajes Field	OS1_88	0.674	7.044
0632	USAF Hospital Upper Heyford	RAF Upper Heyford	OS2_88	0.729	18.233
0639	432nd Medical Group	Misawa	OS1_88	0.670	14.268

Peer Group OS2_90: ADPL < 35, RCMI >= .75					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0603	USAH Berlin	Berlin	OS2_88	0.879	29.951
0604	2nd Field Hospital	Bremerhaven	OS2_88	0.785	22.315
0611	45th Field Hospital	Vicenza	OS2_88	0.767	10.838
0614	196th Station Hospital Shape	Belgium	OS2_88	0.826	11.819
0615	NH Guantanamo Bay	Guantanamo Bay	OS2_88	0.758	6.578
0616	NH Roosevelt Roads	Ceiba	OS2_88	0.874	22.504
0630	USAF Hospital Torrejon	Torrejon AB	OS2_88	0.769	17.06
0631	USAF Hospital Hellenikon	Hellenikon AB	OS2_88	0.827	0.586
0635	USAF Hospital Incirlik	Incirlik AB	OS2_88	0.845	14.74
0637	8th Medical Group	Kunsan AB	OS1_88	1.112	2.597
0638	51st Medical Group	Osan AB	OS2_88	0.833	6.466
0640	475th Medical Group	Yokota AB	OS2_88	0.801	20.581

Peer Group OS3_90: ADPL >= 35, RCMI < .90					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0606	130th Station Hospital	Heidelberg	OS3_88	0.835	64.805
0609	67th Evacuation Hospital	Wurzburg	OS3_88	0.725	47.471
0619	NH Subic Bay	Subic Bay	OS3_88	0.839	37.293
0620	NH Guam	Agana	OS3_88	0.844	41.622
0621	NH Okinawa	Okinawa	OS3_88	0.824	85.436
0622	NH Yokosuka	Yokosuka	OS3_88	0.877	44.912
0633	USAF Rgn Hospital Lakenheath	RAF Lakenheath	OS3_88	0.794	36.077

-- Continued --

EXHIBIT 3-4: OVERSEAS HOSPITALS GROUPED BY FY90 PEER GROUP (Concluded)

Peer Group OS4_90: ADPL >= 35, RCMI >= .90					
DMISID	Facility Name	Installation Name	FY88 PGROUP	FY90 RCMI	FY90 ADPL
0601	34th General Hospital	Augsburg	OS2_88	0.914	39.364
0602	5th General Hospital	Bad Cannstatt	OS4_88	0.967	92.986
0605	97th General Hospital	Frankfurt	OS4_88	0.972	142.463
0607	2nd General Hospital	Landstuhl	OS4_88	1.122	172.101
0608	98th General Hospital	Nuernberg	OS3_88	0.979	90.112
0612	121st Evacuation Hospital	Seoul	OS4_88	0.971	98.178
0613	Gorgas ACH	Gorgas	OS4_88	1.062	89.441
0618	NH Rota	Rota	OS1_88	1.149	41.811
0628	USAF Rgn Med Ctr Wiesbaden	Wiesbaden AB	OS4_88	1.047	52.129
0636	13th Medical Center	Clark AB	OS4_88	1.121	112.625

Seven overseas hospitals switched peer groups between FY88 and FY90. Five of these changes were attributable to changes in RCMI alone. One change, NH Rota, was due to a change in relative facility size. The final change, 34th General Hospital in Augsburg, was due solely to a change in the relative facility size measure.